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ABSTRACT

The large inflow of Foreign Medical Graduates (FMGs) into the U.S. is cited and four issues discussed. They are: (1) the belief that the FMG is less qualified than the U.S. medical graduate and thus contributes to the decline in quality of medical care; (2) the loss of scarce manpower from less developed countries that have greater needs than the U.S. for medical care and for physicians; (3) the lessening of opportunity for large numbers of U.S. citizens to become physicians; and (4) if trends continue, then together with the recently increased capacity of U.S. medical schools, there will be an oversupply of physicians in the U.S. which could lead to adverse competitive behavior, unnecessary care, and higher costs. Each of these concerns is examined together with several alternatives for alleviating each concern and the probable consequences of each alternative. It is concluded that the differential effects of a reduction in FMGs alone does not appear to be the solution to any of the issues, nor is it realistic. The differential effects of a reduction in FMGs on the population they serve may more than outweigh any benefits from such arbitrary reductions. (LLH)

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THE FOREIGN MEDICAL GRADUATE AND PUBLIC POLICY: A DISCUSSION OF THE ISSUES AND OPTIONS

by Paul J. Feldstein and Irene Butter

Number D4 January 1975

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I. Introduction

As of 1972, there were approximately 68,000 Foreign Medical Graduates (FMGs) in the United States.[1] FMGs now account for 20 percent of the total number of physicians (356,534) in the U.S.[2] The number of FMGs entering this country annually has increased from 1,040 in 1954 to 12,285 in 1973, a number greater than the total of U.S. graduates (10,391) in 1973.[3] FMGs now fill one third (18,400) of all internship and residency positions (56,021 in 1972).[4] These trends--the yearly increase in the number of FMG's entering this country and the fact that they are becoming an increasing portion of the total stock of physicians in the U.S.-- has caused increased concern with regard to U.S. policy toward the foreign medical graduate.

Reasons for the concern with the increased flow of FMGs differ, however. To some people, the large number of FMGs entering and remaining in this country represents a loss of scarce manpower from less developed countries (LDCs) that have greater needs than the U.S. for medical care and for physicians.[5]

To others, the primary concern with the large inflow of FMGs is based on the belief that the FMG is less qualified than the U.S. medical graduate (USMG) and therefore that the quality of medical care is declining and will worsen if current trends continue.[6]

Another concern with the large inflow of FMGs is that it removes the opportunity for large numbers of U.S. people to become physicians.[7] If the U.S. did not rely upon the FMG, more medical school spaces

would have to be provided, thus offering greater educational opportunity for our own "sons and daughters" to become physicians.

A final concern with the large inflow of FMGs is that if such trends continue, then together with the recently increased capacity of U.S. medical schools, there will be an oversupply of physicians in the U.S.[8] A surplus of physicians, it has been alleged, would lead to adverse competitive behavior, which would result in unnecessary care and in higher medical care costs.

The FMG "problem" is thus the result of a number of different concerns. These concerns affect various organizations and people quite differently. It appears, however, to be in the interest of all of those having one or more of these concerns to favor policies which would reduce both the inflow of FMGs and their numbers in this country. Unless the above four concerns are separately analyzed, it becomes impossible to discuss alternative approaches for alleviating each concern. Policies which purport to deal with the issue of international equity may in fact be proposed by those persons or organizations whose real concern is with quite a different issue. Thus, for public policy to be effective in dealing with the issues of FMGs, it is necessary to determine whether the differences in political positions are the result of differences in approaches toward alleviating a given concern or whether those positions are in fact over a difference in concerns. To clarify, hopefully, the debate on public policy toward the FMG, this paper will discuss separately each of the above concerns together with several alternatives for alleviating each concern and the probable consequences of each alternative.

II. ISSUE No. 1: International Equity

A. Background to the Equity Issue

One of the first issues that is expressed when FMGs are discussed is the fact that less developed countries (LDCs) are losing their physicians to the United States. The U.S., which has both higher health levels and more physicians per thousand population, is attracting and keeping FMGs that could be used to greater advantage in their own country. It is also believed that the U.S. is not just a passive participant in the outflow of FMGs from LDCs. It has been asserted that the U.S., in attempting to ease U.S. health manpower shortages in the 1960's, actively sought to increase the number of FMGs coming into this country, by introducing changes into the immigration laws, such as the giving of occupational preference to FMGs.

The issue of international equity is concerned with the belief that LDCs, which have high health care needs, subsidize the training of their own physicians and then subsequently lose these physicians to the U.S. The U.S. thus saves on the cost of producing physicians, making a situation where LDCs in effect are subsidizing the U.S.

The countries from which FMGs are leaving has changed. During the 1950's, proportionately more FMGs emigrated from Europe. As of 1971, 66.6 percent of the FMGs were immigrants from Asia, which in 1957 accounted for only 7.8 percent of immigrating FMGs.[9] The largest number

of FMGs are currently (1972) coming from India (1,513), the Phillipines (782), and Korea (768).[10]

FMGs may enter the U.S. either as immigrants or as exchange visitors. Amendments to the Immigration Act of 1952 replaced national immigration quotas by Hemispheric quotas. Further, seven preference categories were established which gave immigration visas first to those qualifying for these preference categories. Four preference categories related to immigration of relatives, one to immigration of refugees, and two to immigration of certain labor categories. An "Occupational Preference" must be certified by the Department of Labor to the effect that a shortage of qualified workers exists in the U.S. and that wage and working conditions of U.S. workers similarly employed will not be affected. For FMGs, the Department of Labor has certified that there are not enough physicians in the U.S. and that no prospect exists for relieving this shortage with American workers.[11]

The Exchange Visitor Program (started in 1948) was to make available to other countries the information possessed by the U.S. educational system. Exchange Visitor Programs are intended to provide education to foreign students under the assumption that upon completion of training these students will return to their countries of origin. Originally, to qualify as a sponsor for an Exchange Visitor Program, an individual or group of individuals needed only to demonstrate their intention to promote better understanding among people in the U.S. and people from foreign nations. Hospital training programs became a key

focus of Exchange Visitor Programs. For hospitals, FMGs, acting in the role of intern or resident, represent a low-cost source of manpower.

Contrary to the original intention of the Exchange Visitor Program, exchange visitor visas have become, for many FMGs, a step toward obtaining a permanent residence visa. In 1965, only about 1 of every 30 immigrant visas issued to physicians went to someone who was an exchange visitor. By 1970, 1 of every 6 immigrant visas issued to physicians went to exchange visitors. This ratio had been reduced to 1 to 2 by 1972.[12] The startling change in this ratio has resulted in large part from changes in the immigration regulations. Due to changes made in 1970, an FMG in the U.S. with an exchange visitor visa was required to return to his or her country of origin for at least two years upon completion of a graduate training program if he or she was sponsored by funds from the U.S. or a foreign government, or if the Secretary of State determined that his or her services were clearly required at home. (The Secretary of State was charged with the responsibility for drawing up a "Skills List" defining which skills were in short supply in foreign countries. The "Skills List" took effect in May, 1972.) In practice, in recent years, few FMGs have been forced to return to their home countries under the foreign residency requirement.

Several factors appear to have produced this development. First, most FMGs enter the U.S. under private sources of funding, relieving them of one of the foreign residency return requirements.[13]

Second, health manpower personnel have had relatively little trouble obtaining a waiver of the foreign residency requirement of the Exchange Visitor Program. In fiscal 1970, waivers of the foreign residency requirement were granted to 741 physicians, surgeons, and dentists who were in the U.S. under exchange visitor visas. Only 1,731 such waivers were granted to all occupations in that year.[14] Third, under the 1970 regulations, persons who were privately sponsored and who did not have skills which were in short supply in their home country were eligible for immediate immigration. Although the new Exchange Visitor regulations were adopted in 1970, the Department of State did not distribute its list of skills in short supply in foreign countries until May, 1972. In the meantime, privately funded exchange visitors were free to apply for conversion of their exchange visitor J visa into a permanent resident visa status. Of those FMGs who changed from exchange visitor to immigrant status in 1972, only 13% had entered the country in 1971 or 1972, indicating that many exchange visitors who had entered in previous years may have taken advantage of the time lag between the implementation of the changes in the foreign residency requirement regulation of 1970 and the publication of the "Skills List". Fourth, FMG exchange visitors, in most cases, are eligible for occupational preference visas. If the quota on occupational preference visas has been filled, FMG exchange visitors are allowed to remain in the U.S., instead of being forced to leave, until a visa spot opens.

In the 1971 House hearings on Illegal Aliens, it was discovered that over 11,000 occupational beneficiaries, most of whom were medical personnel, had been permitted to remain in the U.S. despite the non-availability of visa numbers needed to complete their immigration adjustments.[16] Taken together, these four policies indicate that it has been relatively easy for exchange visitors to remain in the U.S., contrary to the original intent of the Exchange Visitor Program.

In addition to FMGs entering the country are the increasing numbers of U.S. citizens studying medicine overseas with the intention of re-entering this country to practice medicine. It is estimated that between 5,000-6,000 U.S. students are pursuing their studies in foreign medical schools. More than half of these students are studying in Mexico or Italy.[17] This represents a shift in the countries abroad where U.S. students are receiving their medical education. In the past, more of the students studied in European countries; however, several of these countries recently began restricting their medical school places to their own students. There may thus be a second subsidy from other countries to the U.S. if the medical education of U.S. students studying abroad is subsidized by that country. (This aspect of the equity issue, U.S. citizens studying overseas, will be discussed separately in Section IV, Issue No. 3, below.)

In order to propose alternative options for rectifying the situation, where LDCs are in effect subsidizing the U.S. medical care system, it is first necessary to construct a proper framework for

determining what would be conceptually correct solutions to the problem.

The reason an inequitable subsidy situation has arisen is that while some countries have subsidized the education of their physicians, and subsequently have lost them, other countries are receiving a benefit (physicians) for which they have not paid the cost. Thus, those receiving the benefits have not been bearing the costs, while those bearing the costs are being deprived of the benefits. Such a situation could be corrected if those who receive the benefits were to reimburse those bearing the costs. If the beneficiaries were to reimburse the losing country for the costs of losing their physicians, this would compensate the country for its losses, and in addition, would serve to decrease the demand for FMGs. The equity problem is similar to one where a state subsidizes the education of an MD and then the MD leaves to practice in another state.

The principle of compensation and of who should compensate whom seems simple enough. There are however, several problems in implementing it.

First, what are the costs to the country from which the FMG has emigrated? Is it merely the costs of replacing the FMG, such as the costs of education which has been subsidized by the country? Is it in addition the foregone taxes (less the FMG's claim on government services) that the FMG would have paid? Is there a loss to the country in terms of what the FMG could have contributed above his services as a physician? These costs, and possibly others would certainly differ for each country.

Secondly, who benefits from the FMG's emigration? One obvious beneficiary is the FMG himself. FMGs will earn a higher income than they could have earned had they not emigrated. The FMG's employer might also be a beneficiary. If a hospital hires an FMG and collects revenue based on the FMG's services that are in excess of what the FMG is paid (plus any other costs), then the hospital is a beneficiary as well. Further, if a physician with staff privileges is relieved of longer hours in the hospital as a result of the hospital's hiring of the FMG, or if the FMG serves in a capacity which would fall upon the U.S. physician--e.g., if he or she were to be on call in the hospital, rotate in the emergency room, etc., or if the FMG increases the U.S. physician's productivity, and hence his income, then the U.S. physician is also a beneficiary of the increased number of FMGs. An additional set of beneficiaries are the U.S. taxpayers. Since medical education is subsidized by the federal and state governments, the U.S. receives physicians, which, if it were to produce the same number itself, would cost the taxpayer a sizable sum.[18] (These benefits, however, are not evenly distributed throughout the U.S. and among its taxpayers.)

A third practical difficulty to solving the problem of an inequitable subsidy is that even if the country losing FMGs could determine the cost that would compensate it for each FMG leaving,

and if each of the beneficiaries (and the extent for each) were clearly identified, how does one collect from the beneficiaries to repay the losing country? Once the FMG has left the country, i.e., he leaves the country as an exchange visitor and then converts to immigrant status once in the U.S., he cannot be required to repay that country.

What would be some direct solutions to the "equity" problem? One would be if the country losing FMGs were to require all of its costs to be repaid before the FMG could emigrate. Even if LDCs were to institute such a policy, we would expect these countries still to lose some of their physicians. FMGs even under these circumstances would want to emigrate to the U.S. or other developed countries, because the higher incomes of physicians in these countries would, despite the repayment requirement, make it worthwhile for a number of them to emigrate. Potential employers might even, in some cases, be willing to loan the FMGs the funds to repay their costs.[19]

If the losing country could recover its losses from the emigrating FMG (or from the potential employer), then the solution to the problem would be much simpler. The consequences of such a policy would be that fewer FMGs would emigrate. However, the type of FMG leaving might change; the departing FMGs might be those who by U.S. standards are of higher quality, thus having greater confidence in their ability to obtain a higher paying job and to repay their costs.

However, if the losing country were not able to impose such an export tax on its emigrating physicians (perhaps because the physicians wishing to leave came from higher income and more influential families), then what policies could the U.S. pursue to remedy the situation? The U.S. could impose a tax on the FMG's income and then remit it to the FMG's country. Similarly, the U.S. could try to collect from FMG beneficiaries, i.e., hospitals and physicians employing FMGs as staff physicians and residents, by imposing a tax on them. However, these types of taxes, it is believed, would be unconstitutional.[20]

Thus, the most direct way of dealing with the equity issue is for the losing country to impose a tax on the emigrating physician equal to its perceived loss. If, for some reason, the losing country were not able to do that, then the next best direct approach would be for the U.S. to place a tax on the FMG and/or on his employers and remit the proceeds to the losing country. Failing the use of such direct approaches, a number of indirect approaches have been suggested and will be briefly discussed. Some of these proposals seek to discourage the inflow of FMGs into this country; others try to encourage them to return home once they have emigrated.

B. Proposals to Discourage the Inflow of FMGs into the U.S.

1. Change Immigration Policy:

Any proposal which seeks to reduce the entry of FMGs by placing country quotas or by limiting the number of FMGs that can enter the U.S.

does not rectify an inequitable situation, i.e., helping the country that is losing FMGs. If the FMG is not permitted to enter the U.S., then he or she can still go to another developed country. Such a policy would merely shift the benefits away from the U.S. to some other country.[21]

Some of the benefits that the U.S. would lose with a decline in the number of FMGs follow: (1) A number of states, among them New York, Illinois, Ohio, New Jersey, and Michigan, would lose a sizable number of their practicing physician and resident population if there were a decrease in FMGs. The effect among states would vary greatly, from 35 percent of its physicians being FMGs in New York to less than 2 percent in Arkansas.[22] (2) Approximately 85 percent of FMGs are in patient care activities with approximately 50 percent being located in hospitals.[23] (3) FMGs consist of more than 50 percent of the house staff in more than 42 percent of the hospitals offering residencies. In 311 hospitals (or 31 percent), 76-100% of their house staff are FMGs.[24] (4) In those specialties considered to be primary care, general practice, internal medicine, pediatrics, and obstetrics, FMGs have filled approximately 66 percent of the residency positions in non-affiliated hospitals and approximately 34 percent of residencies in affiliated hospitals. Fewer FMGs would mean a loss (as of 1972) of about 5500 residents in primary care.[25] (5) In state mental hospitals the predominant physician is an FMG. (6) Although data are lacking, it is believed that the large numbers of FMGs in hospital-based practice

are located in inner city areas, serve the low-income population, and man the outpatient departments and emergency rooms.

Without FMGs, these population groups and those persons in state mental hospitals would suffer a great decline in their ability to have any access to medical care.

If the benefits to the U.S. of having FMGs are simply shifted to other developed countries, then, of course, the country losing FMGs is no better off. Thus, proposals which arbitrarily attempt to limit the number of FMGs entering the U.S. must have some objective other than equity in mind, since those proposals would be ineffectual in improving equity.

Given the overall immigration policies and limits that the U.S. currently maintains, the U.S. should be neutral in the type of people that it attracts through immigration. That is, U.S. immigration policy should not be related to the health manpower needs of the U.S., to the disadvantage of less developed countries. Thus, the issuance of "Occupational Preference" visas with the restriction (as of May, 1972) that the skill possessed by the prospective immigrant not be in short supply in the potential immigrant's home country would achieve this; however, it is too early to judge its impact. How large an effect such a change in the immigration law would have on the number of FMGs entering this country is difficult to determine. In 1971, it was estimated that approximately one-fourth of FMGs came under the occupational preference category.[26] Since the number of FMGs

entering as immigrants rose to 5,756 in the next year, this change could mean a loss of approximately 1,440 FMGs per year to the U.S. However, this estimate would probably be high since the FMG could either enter under another preference category or undergo a case-by-case certification by the Department of Labor.

2. Changes in the Exchange Visitor Program:

As the Exchange Visitor Program is currently administered, the intentions of the applicant upon entering the program are subjected to very little scrutiny. Similarly, the type of training made available through the program may bear little relation to the type of training most needed in the FMG's country. If the Exchange Visitor Program is to fulfill its original intentions of information exchange and assistance in training to other countries, rather than serving as a subterfuge whereby FMGs can be attracted to work in the U.S., then several changes are required:

a. Screening of potential exchange visitors by the FMG's country. To provide assurance that the applicant is qualified, that the applicant is committed to return home, and to determine the appropriate training program that would be most beneficial to the FMG's country, exchange visitors can be accepted on the basis of recommendations from a screening committee established in the FMG's country, or require sponsorship of the FMG by the host country (and assure the FMG of a position back home upon completion of the training program.)

b. Establishing minimum requirements for Exchange Visitor Programs in U.S. hospitals. It has been suggested that for Exchange Visitor Programs to be effective, they must include orientation and language courses as well as showing the ability to provide the necessary training that an exchange visitor requires, i.e., the skills taught should be those that are most needed in an LDC. It may be that a number of hospitals could offer these additional programs and still benefit themselves by having such a training program (i.e., in terms of the services provided by the trainee). In those cases where the training required would not be offered unless it were subsidized, then federal subsidies may be needed to fulfill the goals of the Exchange Visitor Program as originally legislated.

c. Requiring that exchange visitors must leave the U.S. for a minimum period of time. To ensure that the Exchange Visitor Program is not used as a means of immigration, exchange visitors should be required to leave the U.S. for a minimum period. This would not necessarily mean that the FMG would return to his or her country, but it would mean that the U.S. has fulfilled its obligation to provide such training and that the U.S. is not attempting to bypass its own immigration policies and provide occupational preference where none should exist.

How large a decrease would there be in the number of FMGs remaining in this country if all exchange visitors returned home and none remained in the U.S. as immigrants? In 1971, 4,784 exchange visitors to the U.S. were physicians. In the previous year, 1970, one of every

six immigrant visas that were granted to FMGs went to an FMG who was an exchange visitor.[27] Thus, if such ratios were at all meaningful, then approximately 800 FMGs per year would be lost by the U.S.

The number of FMGs lost to the U.S. as a result of changes in both the occupational preference categories and as a result of changes in the Exchange Visitor Program would be approximately 2,240 per year (800 from the Exchange Visitor Program and 1,440 from the change in occupational preference category). There would still be a net inflow of over 4,000 FMGs per year.[28]

3. Establish Regional (or Hemispheric) Training Centers:

Establishing regional centers outside of the U.S. to assist the LDCs in the training of their health manpower is a worthwhile foreign aid type program. However, this type of effort, which would take time to establish, would do little to decrease the efforts by FMGs to migrate to developed countries because of the higher expected incomes they can receive. Thus, this policy, which may have other favorable aspects to recommend it, will not be pursued further as a means of discouraging FMGs to enter the U.S.[29]

4. Decrease the Number of Residencies Available to FMGs:

a. Increase Medical School capacity in the U.S. If the U.S. medical school capacity were increased so that USMGs would fill all of the offered residency positions, then, in addition to the time it would take for such a proposal to have its effect, it would be enormously costly. Earlier (Footnote 18) some estimates were provided regarding the

costs of replacing the entering FMGs. At a minimum it would take several billion dollars and would be unlikely to replace all of the FMGs in residencies. (This proposal will be discussed further in the section discussing the Quality issue.)

In addition to the large cost involved and the time it would take to achieve such a goal, it is unlikely that it would decrease the desire by the FMG to emigrate from his country. The relatively higher incomes in developed countries would still provide the FMG with an incentive to emigrate. The FMG might try to enter as an immigrant. He need not tell anyone that he is a physician, and, once in this country, he could still find employment in public hospitals or elsewhere in the medical care system. Further, such a policy might merely shift the FMG's benefits to another developed country; it would not necessarily keep him home.

b. Limits on the number of residencies available to FMGs. Similar in its effect to the above policy would be a policy that would arbitrarily limit the number of residencies available to FMGs. Some proposals have suggested that the total number of residencies be arbitrarily set at 110 percent of the number of USMGs. Such a policy would at least not incur the huge costs of replacing the FMGs (assuming that they would not be replaced by USMGs), but it would result in a different "cost". This latter cost would be to decrease the availability of care, the supply of physician services, to those people currently being served by FMGs.

if, as previously discussed, the FMG provides care in larger cities, predominantly in hospitals, and if, as is commonly believed, it is the lower-income persons who receive care from the hospitals where FMGs are located, then such a policy would not be neutral in its effects. It would fall harder on some persons (and states) than others. It would adversely affect the medical care available to low-income persons.[30]

III. ISSUE No. 2: The Quality of Medical Care Delivered by FMGs

There appears to be a significant quality differential between the FMG and the USMG. The evidence of this quality differential is based upon performance on test scores (both the ECFMG and FLEX), the greater proportion of FMGs in unaffiliated residencies, and their poorer performance in residencies when evaluated by their instructors.[31]

It is not the purpose of this paper to discuss the adequacy of the various quality instruments that have been used to compare the performance of FMGs and USMGs. It is commonly believed that a quality differential exists, and for purposes of examining alternative options in this area, that judgment will be accepted.

Those persons concerned with the quality of FMGs have proposed a number of alternatives to ensure that the quality of medical care available in this country does not fall below certain minimum levels. These minimum levels are usually defined in terms of the level of training received by USMGs and by their superior performance on the prerequisites necessary for licensure in the U.S.

In fairness to the FMG, it should be noted that among FMGs their relative performance on exams and in residencies varies greatly, not only among those who come from the west European countries but also among those entering from the less developed countries. Thus, any policy which seeks to solve the quality issue by restricting the entry of all FMGs who wish to remain in this country will eliminate as well those FMGs who go into research positions or academic teaching and others

who score as well as USMGs on exams and perform as well as USMGs in their residencies.

A number of proposals have been made with regard to residency programs, all of which, in one way or another, have the effect of reducing the number of residencies available to FMGs. Examples of such proposals are suggestions that the number of FMGs in residencies in affiliated hospitals be reduced each year (Senator Beall's amendment); that a hospital's residents consist of at least 25 percent U.S. and Canadian medical graduates (AMA Council on Medical Education); or that the number of internships and residencies in approved hospitals be reduced to 110 percent of the number of U.S. medical graduates (Congressman Roy's bill).

If the reduction in residencies is based upon the premise that most if not all FMGs would not be able to receive residency training, then this would be a poor approach toward increasing quality. It does not recognize the differential quality of FMGs and the fact that a number of them receive their graduate training in hospitals where the educational content is of high quality.

A policy that reduces residencies with the objective of achieving high quality should not discriminate on the basis of whether the person is an FMG or a USMG. Instead, a reduction in residencies should be based on the content and quality of the residency program itself. If any criterion other than quality is used, then the proponents generally have an objective other than quality in mind.

The following are quality options that have been proposed. They range from those quality measures that would result in the largest reduction of medical services to one which could result in the smallest decrease in care and could, conceivably, even result in an increase in the availability of medical care.

A. Elimination of Residencies in Unaffiliated Hospitals

Graduate training programs require a combination of education and service. However, it is believed that the educational content of residencies in unaffiliated hospitals (and in unapproved residency programs) is poor, and that this, in part, accounts for the poorer performance of FMGs on license examinations. A reduction of residencies where the educational content is poor will, it is believed, result in fewer, more highly qualified practitioners.

In 1972, there were 56,021 interns and residents in U.S. hospitals. Of these, 50,350 were in hospitals that were affiliated with medical schools. The remainder, 5,671, were in unaffiliated hospitals. 94 percent of USMGs (35,609) served their residencies in affiliated hospitals, while 85 percent of FMGs (3,623) were residents in affiliated hospitals.[32] Thus, a reduction in unaffiliated residencies would mean a loss of 5,671 residents, unless these programs were upgraded and became affiliated.

Those opposed to proposals which arbitrarily limit the number of residencies argue that the services provided by the FMG resident must either be replaced or that the persons receiving such care will lose such services.

There appear to be two main beneficiaries of residents (in addition to the residents themselves). The first is the physician in private practice. A resident provides services to the physician's hospitalized patient and is available in the hospital at inconvenient times. Thus, not only does he or she increase the physician's productivity but she or he adds to the physician's income. The physician will charge for services which the resident has helped to perform. If the number of residencies offered in both affiliated and unaffiliated hospitals were to be reduced, a number of the tasks that are performed by the resident would shift to the physician. It is thus understandable that the AMA's House of Delegates has refused to go along with the AMA's Council on Medical Education's recommendations on reductions in residencies. If the number of residencies were reduced, one would expect physicians to pressure hospitals to replace some of their tasks (availability, service in emergency rooms, etc.) by the use of physician assistants or to give greater responsibility to RNs. Alternatively, the hospital might be forced to drop certain services where a physician's presence would be required.

The other main beneficiaries of residency programs are those persons who would not receive physicians' services if it were not for residents. The population groups most affected are the poor and those using outpatient and emergency room facilities as their source for primary care. Although strong empirical evidence is lacking on the population served by hospitals using FMGs in their residency programs,

it is believed that the high concentration of FMGs in urban hospitals serves a population that is different from that served by U.S. physicians.

Another problem with arbitrary limits on the number of residency positions is that they may freeze the existing specialty distribution of physicians. One would expect that the number of physicians in different specialties would change over time, in part as a response to changes in demands for such specialties. If arbitrary cutbacks in the number of residencies are made, then the cutback should be in the overall number rather than in each specialty so that some flexibility among specialties is permitted.

In 1972, FMGs filled approximately 33 percent of the residencies in primary care: General Practice, Internal Medicine, Pediatrics and OB-GYN.[33] Thus, as of 1972, reducing the number of FMG residencies (in both affiliated and non-affiliated hospitals) would result in a decrease of 4,402 residents in primary care.

There would be differential impacts as a result of a reduction in residencies. The number of residencies in some hospitals consist almost wholly of FMGs, and the impact upon states would also vary greatly. The proportion of residents that are FMGs in New York, New Jersey, Rhode Island, Delaware, and Illinois, are at least 50 percent and in some cases up to 78 percent (New Jersey).[34] If, as has been hypothesized, the populations served by residents are the poor and

those without their own primary physician, then the consequences of such a cutback on the U.S. population would be very uneven.

B. Upgrading the Residency Program

If poorly trained FMGs are placed in low quality residency positions, then this cumulative process of poor training will result in poor performance on examinations as well as in quality of care as practiced. The proposal has been made, therefore, that all residency programs have certain minimum educational content and, for FMGs, contain language courses, compensatory training, and orientation courses.

The consequences of these proposals will serve to increase the cost to the hospital of residency programs over what they would be without such requirements. These costs will fall more on those hospitals that use proportionately more FMGs as residents and look to FMGs more for service in the residency program. (Some of these costs may be shifted to the FMG if orientation and language courses are given in regional training centers and the FMGs are required to pay their own costs.)

If these requirements are to be met in hospitals which offer residency programs, then it will lead to a decrease in the demand for FMGs by the above type institutions. It is difficult to say how large the decline in demand for FMGs will be since it will depend on the increased cost of the new educational requirements. However,

a policy to improve the residency program will likely lead to a smaller decrease in the number of FMG residents than a program which eliminates all residencies in unaffiliated hospitals.

C. Improved Testing and Higher Test Scores

The basis for much of the assessments of the quality differential between USMGs and FMGs is the use of test scores. There are several reasons why the exams FMGs take (ECFMG and FLEX) may be biased against them; however, the concern regarding quality is that these tests are still not a proper screening device. FMGs may take the exams an unlimited number of times as well as taking crash courses, both of which will improve their chances of passing.

Proposals with respect to examinations as a guardian of quality are: (1) that the passing score on the ECFMG be raised; (2) that before FMGs enter the U.S., they take the National Boards (parts I and II) as do USMGs; and (3) that the number of times an FMG can take the exam be limited.

All of these proposals will decrease the number of FMGs who can enter residency programs and subsequently practice. For example, if the passing score on the ECFMG is raised from 75 to 80, then the percentage of FMGs passing will fall from 38 to 12 percent.[35]

Critics of the current use of testing as a measure of quality suggest that, in addition to being biased against the FMG, there is to date no empirical correlation between testing and subsequent performance. If the number of FMGs who are allowed to practice is decreased as a

result of higher test scores, will the quality of care be higher if nurses and other health workers are substituted for the FMG? Should such substitutes to the FMG have to take similar exams?

Testing can be a good screening device if the tests are valid measures of quality and likely performance. Also, for tests to be good screens, crash courses and the number of times the test is taken should not affect the passing score. The level at which the passing score is set is also very important. Some proponents of very high passing scores are really in favor of restrictions on the number of persons who can enter the profession.[36]

D. Limited Licensure

One problem with the current examination system for licensure is that the passing score of the exam determines whether a person can or can not practice. If the passing score is raised, then a person who would have passed at a lower score cannot now practice at all. Surely such a person is qualified to do some tasks but not all of those that are required for licensure. An example is the "underground" of FMGs who are presumably practicing in hospitals without being fully licensed and are not legally permitted to practice at the level of their ability.

If limited licenses (by tasks) were permitted, then some of the concern with the quality of care practiced by FMGs would disappear. Passing scores can be set as high as is desired for full licensure, whereas there could be several levels at which an FMG could pass.

Such a system of limited licensure would recognize what in fact exists; it would not decrease the number of FMGs in the system but it would restrict what tasks they can perform. For some FMGs this may mean being a physician's assistant. For others it may be the first step toward full licensure.[37]

The issue of quality should not be raised just for the FMG. Large numbers of U.S. physicians trained in this country received their licenses 30 or more years ago and the quality of the care they practice is largely unknown. Re-examination and relicensure for all physicians would certainly be consistent with concern for the quality of care practiced by FMGs. Re-examination (for relicensure) would also require limited licenses for U.S. physicians if the passing score on these exams is to be sufficiently low so that few persons fail completely. To put it more realistically, if the score is set high then large numbers of physicians may have to stop practicing completely. Those persons concerned with the quality of medical care as practiced by physicians should not discriminate according to whether the physician has been trained overseas or in this country. A better screening mechanism would be re-examination and relicensure for all physicians, regardless of where they were trained. Such a policy would recognize the differences in quality of care that currently exist among both U.S. and foreign trained physicians. Further, such a policy would not necessarily decrease the availability of medical care but might in fact increase it, perhaps at the primary care level. Since the levels of training required for different licensure levels need not be the same, it might be possible to train more physicians in a shorter period for licensure at a limited level.

IV. ISSUE 3: The "Sons and Daughters" Argument for Decreasing U.S. Reliance on FMGs.

There is a belief among the parents of children who did not get accepted into medical schools that their children would have been able to become physicians if the U.S. did not rely on the FMG and instead strove for "self-sufficiency" in meeting its physician requirements.

For many years, the number of applicants to U.S. medical schools has far outstripped the available supply of U.S. medical school spaces. Ratios of numbers of applicants to numbers of enrollments during the past ten years have fluctuated between 1.9 and 2.6.[38] In recent years, however, ratios have tended toward the upper part of the range. Even with the greater number of medical school spaces available, the number of applicants to acceptances has risen. The increased number of applicants does not represent any lowering of the required academic qualifications. For example, Richard Egan, M.D., the assistant director of the AMA's Department of Undergraduate Medical Education, wrote in a recent editorial, "It's estimated that more than 100 additional medical schools of the present average size would be necessary to accommodate the current number of qualified, yet rejected, applicants."[39]

Therefore, it is believed that if the U.S. were to decrease its reliance on FMGs and were to replace them with U.S. trained physicians, such a curtailment policy would result in greater opportunities for Americans to become physicians.

Merely curtailing the number of FMGs entering the U.S. and/or decreasing the stock of FMGs practicing in the U.S., however, will not by itself result in greater educational opportunities for prospective U.S. medical students. Just decreasing the number of FMGs will not lessen the excess demand for medical training (i.e., more applicants than spaces at the prevailing level of tuition). A policy of "self-sufficiency" or of greater medical education opportunities must be accompanied by additional action. Examples of such additional action would be policies to increase the supply of medical education facilities and/or actions which serve to decrease the demand for medical education by prospective students. The large number of FMGs in the U.S. together with an unsatisfied demand for medical education makes it appear that one situation has led to the other, whereas in fact the U.S. has had an excess demand for medical education since the Second World War and before the large inflow of FMGs started.[40] Even if the U.S. lost most of its FMGs it is likely that, under current methods of financing and payment for medical education, an excess demand for medical education would continue to exist. Conversely, if most of the excess demand for medical education is satisfied, then there should be no concern with the number of FMGs.[41] Thus, it would appear that the FMG issue is secondary to the issue of how to satisfy the continued excess demand for medical training.

If, however, the goal is not merely satisfying the excess demand for medical education but also of being "self-sufficient" in the

production of physicians, then the supply of FMGs does become relevant. It is difficult to understand the reason for self-sufficiency as a goal by itself. The U.S. does not have self-sufficiency as a goal in any other area of activity except for the recently stated one with respect to oil. And even with respect to oil, self-sufficiency is believed to be too costly to pursue. The self-sufficiency argument with regard to the production of physicians is, I believe, really a concern with being able to satisfy the U.S. demand for medical education rather than one of self-sufficiency itself.

There are two basic policy options for satisfying the excess U.S. demand for medical education. The first set of options would result in an increase in the supply of medical education opportunities available to U.S. citizens. The second set of policy options would attempt to decrease the demand for medical education by prospective U.S. students.

A. Increase the Supply of Medical Education Opportunities for Prospective U.S. Medical Students.

An expansion in medical education opportunities can be achieved in one of several ways: medical school capacity in the U.S. can be increased, or medical education opportunities for U.S. students in other countries can be subsidized and the students reintegrated into the U.S. medical system on their return.

1. An Expansion of U.S. Medical School Capacity:

An increase in medical school spaces to satisfy the

large excess demand for medical education would require more than doubling current medical school capacity. Since the current ratio of applicants to acceptances is approximately 2.4, excess demand would still exist; however, the concern with this issue would decline.

What would be the approximate costs of satisfying the excess demand for medical education through expansion of U.S. medical school capacity? If we were to double the number of medical school places, and still be left with an excess demand of approximately 20 percent, then an additional 14,000 first-year places would have to be provided. Alternatively, if the number of additional first-year places required to meet the expectations of prospective U.S. medical students were based on the number of residency positions available in affiliated hospitals, then at least 6,342 additional spaces would be required. In 1972, 16,980 first-year residency positions were offered in affiliated hospitals. Of these first-year positions, 15,112 positions were filled, 4,474 of these by FMGs. To fill the vacant resident positions and to replace FMG residents with USMG residents in affiliated hospitals, at least 6,342 additional USMGs per year would be required.[42]

To achieve this increase in capacity, existing schools could be expanded or new medical schools could be built. A recent study of start-up expenditures for new or expanded medical schools estimated that capital expenditures per student in new and expanding medical schools were approximately $458,000 per additional student.[41] According to this estimate, capital expenditures for 14,000 new spaces would cost approximately $6.0 billion. For only 6,342 new spaces the cost would be approximately $2.9 billion.

The amount required for capital expenditures, however, is less than the total amount required. The costs of such a policy option are greater still. According to the Institute of Medicine-National Academy of Sciences study on the costs of medical education, the medical education costs per student, exclusive of depreciation, was $12,530.[44] Since tuition covers approximately one-third of medical education costs, then an additional operating subsidy would be required for two-thirds of the above education costs per student, or $8,250 per student per year.[45]

Thus, to increase the number of first-year spaces by 14,000 would require $6.0 billion in capital outlays and an annual operating subsidy of $107 million, assuming no inflation. The more modest goal, such as filling all residencies in affiliated hospitals with U.S. medical graduates, would cost $2.9 billion in capital expenditures plus an annual operating subsidy of $53.4 million per year. These subsidies would be <u>in addition</u> to the current level of subsidies being provided to the medical education sector. Needless to say, it will take a number of years before even the more modest goal can be achieved.

Also important in terms of the potential costs of such a policy is that if the demand for medical education were to decline, then it might be said that there was a federal commitment to continue funding the medical schools. If this were the case, then it is more likely that each school would reduce its student enrollment rather than have entire schools close down. This would result in much higher

education costs per student. An important and powerful interest group, the American Association of Medical Colleges, would be greatly increased in the number of its constituents. After having subsidized these schools to expand and having funded the growth of many new ones, the pressure would be on the federal government to maintain its commitment to these schools and to continue funding them. We see this currently occurring in the debate over the renewal of the Health Manpower Legislation. Thus, in considering this option, the future costs of maintaining excess medical school capacity should be borne in mind.

The level of government spending required to achieve self-sufficiency in physician production or to increase medical education opportunities by increasing U.S. medical school capacity is sufficiently high to raise the question of whether it is both warranted, given other needs in our society, and whether it is a realistic possibility.

2. An Increase in Overseas Medical Education Opportunities:

The demand for a medical education in the U.S. is sufficiently great that a significant number of Americans travel overseas each year to obtain their medical education. For the 1971-72 school year, 3,715 Americans were enrolled in medical schools outside of the U.S. (Some foreign schools did not report enrollments of U.S students so this number is a conservative estimate.)[46] Especially high enrollments of U.S. students abroad are found in the Autonomous University of Guadalajara, Mexico and the University of Bologna in Italy, which account for more than half of all Americans attending foreign medical schools.

The U.S. medical student studying overseas (USFMG) generally spends more time than if he or she had attended medical school in the U.S. (5.43 years and even longer for those requiring a foreign language).[47]

An alternative policy to increasing U.S. medical school capacity would be to fund the educational requirements of U.S. students studying medicine overseas. The Comprehensive Health Manpower Act of 1971 permits loans and scholarships for qualified U.S. students receiving a medical education abroad. These provisions of the Act, however, are yet to be funded.

Subsidizing the study of medicine overseas is a far less costly option than increasing U.S. medical school capacity. Overseas medical education costs are less than in U.S. medical schools. However, the quality of the medical education the student receives also differs greatly. Further, for students studying overseas there are costs involved in reintegrating the returning USFMG into the U.S. medical care system. Examples of the approaches that could be expanded under this option of overseas medical education for U.S. students are COTRANS and the "Fifth Pathway."

Both COTRANS and the "Fifth Pathway" are attempts to assist U.S. students in foreign medical schools in gaining entrance into the American health care system. In 1970, the AAMC established a "coordinated transfer application system" (COTRANS) to facilitate the evaluation of the credentials of U.S. students, studying abroad, who wish to transfer to a U.S. medical school, normally upon completion of their basic science training.

This system remains small, although it has some potential for expansion. Since its beginning, 560 COTRANS applicants had been accepted.[48]

Secondly, effective in 1971, the AMA permits USFMGs to enter approved graduate education programs without meeting the internship or social service degree requirements of foreign medical schools and without obtaining ECFMG certification. Instead, students qualifying for the "Fifth Pathway" must participate in a year-long program of supervised clinical training in a hospital which has agreed to sponsor a "Fifth Pathway" training program. Upon successful completion of this training program, a USFMG is eligible for entry into an approved U.S. graduate education program. Currently, the response of medical schools to the new AMA graduate education entry requirements allowing a "Fifth Pathway" has been small.[49]

It may be difficult to encourage large numbers of U.S. students, sufficient to satisfy the entire excess U.S. demand for medical education, to study overseas. Although the costs of this option would certainly be lower than attempting to satisfy this demand by increasing U.S. medical school capacity, the quality of the education received by the student overseas would be lower and foreign governments might object to the idea. An additional advantage of having some overseas medical education as an outlet for U.S. students is that if the demand for medical education in the U.S. were to decrease, then the U.S. would not be left with the prospect of having to maintain as large an excess of medical school capacity.

3. Decreasing the Demand for a U.S. Medical Education:

Medical education is subsidized by both the federal and state governments. These subsidies allow the schools to reduce their reliance upon tuition income for the operation of the medical school. A policy which required the schools to increase their tuition to cover more of the education costs (perhaps by decreasing federal and state subsidies to medical schools) would cause a decline in the demand for a medical education. One of the factors that influence a prospective student's desire for a medical education is the cost of that education. If the price of a medical education (tuition) is maintained at an artificially low level, as it currently is, and the number of school spaces available is related to other factors, then the demand for such education will continually exceed the available supply. Since tuition is maintained at a level much below the cost of education (about one-third of the actual costs), then it is difficult to determine how much of the demand should be satisfied. There are more students willing to pay this lowered tuition than there are places for them; thus, there will be continued excess demand by prospective students for a medical education. Higher tuition, more fully representative of educational costs would decrease the rate of return to a medical education--hence decreasing students' demands for school spaces.

Any policy which results in higher tuition to all students must at the same time provide some mechanisms so that a medical

education does not become available only to students of high-income families. High tuitions would place a particularly heavy burden upon students from low-income families. Therefore, for students from all economic backgrounds to be able to attend medical school, a policy of higher tuition rates would require increased amounts for loans and scholarships and opportunity loan banks. In return for such financial assistance such students would have the choice of working in physician shortage areas or repaying their loans as a percentage of their income, i.e., income-contingent loan repayment plans.

Such a policy, however, is a drastic change from our current system of financing medical education and would meet strong resistance from the medical education community.

A policy requiring schools to rely on higher tuition charges might, had it been used in the past, have caused the schools to respond to the increased demands for a medical education. The response by medical schools to the increased demand for spaces improved after they received federal and state funds which required increases in their enrollment. Until that time, and currently, large numbers of U.S. students that were rejected have been willing to study overseas, pay higher than U.S. tuition rates, and spend more years to receive their medical education than their more fortunate U.S. counterparts.

Even if the financing of medical education were changed so that there was no longer an excess demand for medical education, a desire among FMGs to practice in the U.S. would continue to exist.

The rate of return to an FMG from practicing in the U.S. would still exceed what they could earn if they remained at home. However, as far as U.S. students are concerned, if there were little or no excess demand for a medical education, the presence of FMGs would no longer represent a lost opportunity to them.

V. ISSUE 4: FMGs and the Problem of a Possible Surplus of Physicians.

One of the issues often raised when FMGs are discussed concerns the impact that a large inflow of FMGs will have on the market for physician services. During the 1960s (and earlier), when it was commonly believed that there was a shortage of physicians, the influx of FMGs helped in alleviating the increased demands for medical care. Years later, starting in the early 1970s (after federal capitation grants had been instituted), medical school capacity had increased so that now a different concern arose among some organizations. It is believed that the current rate of production of USMGs and the continued inflow of FMGs, together with the declining rate of growth of the U.S. population, will result in a surplus of physicians.[50] As a result of this new concern, various professional organizations have called for a reduction in both the inflow and number of FMGs in this country.[51]

In traditional economic markets, a surplus would result in lower prices (actually with today's inflation it would mean that prices would not rise as rapidly), and more persons would be able to purchase the service at the lower prices. If this were to occur, it would adversely affect the incomes of physicians. As would be the case with any industry or group of workers, the physicians would be concerned that an increase in their number would lead to greater competition among themselves. FMGs would still be better off than if they remained at home, but the greater competition would lead to lower incomes among U.S. physicians than if the physicians in the country were fewer in numbers.

Therefore, one set of persons that would be expected to be against the continued inflow of FMGs on economic grounds would be U.S. physicians.

One might suspect that the AAMC would also be concerned with the surplus problem, since there would be less interest on the part of state and federal governments to fund medical schools if it were believed that there are too many physicians. A lower number of FMGs, therefore, would still require continued increases in the number of USMGs (although not at the rate of expansion that has occurred in the last few years).

A different (and contrary) concern with the consequences of a surplus of physicians is that many people believe that physicians can create their own demand. Given the general lack of knowledge by patients, physicians are both their advisers and suppliers of medical services. Further, the traditional method of payment for physician services, fee-for-service, creates an incentive for the physician to supply such services. In a shortage situation, it is believed, physicians will have no need to create additional demand for their services, since they will be able to work at capacity or at the level they desire. Under surplus conditions, however, the fee-for-service system and the lack of patient information increases the potential for abuse, as it offers monetary incentives toward misuse of the physician's relationship with the patient. This increased care when paid for by the government can result in greater budgetary

requirements under government payment programs than are believed necessary. Thus, the Federal government, as a payor for Medicare and Medicaid (and also for a possible national health insurance system), might also be expected to be concerned with a possible surplus of physicians.

Still another concern with the consequences of a physician surplus is that quality of care may decline. For example, if excess capacity exists among surgeons then they will perform fewer surgeries and be less experienced. Further, physicians will be less likely to refer patients if they are concerned about losing them.

A number of these concerns about a physician surplus appear contradictory, depending upon which organization views it and upon what the actual consequences of a surplus situation will be.

The basis for projections of physician shortages and surpluses is the physician-population ratio. If the number of physicians per 1000 population exceeds what existed in the past, then it is believed that there is a physician surplus. Such calculations do not take into account increased demand for physician services (nor increased physician productivity). The concern that continued increases in FMGs will exacerbate MD surpluses is thus based on a projected increase in the MD-population ratio. However, even though the MD-population ratio may increase, there may still be a maldistribution problem and certain population groups will still receive an insufficient amount of physician services.

Since a physician surplus is of serious concern among certain groups and organizations, various proposals for resolving (or at least mitigating) it should be considered, together with their consequences.

A. Decrease the U.S.'s Reliance on FMGs

A direct means of reducing the likelihood of a surplus of doctors would be to restrict the entry of FMGs. Smaller numbers of incoming FMGs imply a slower rate of growth in the supply of doctors and hence, a smaller surplus threat. There are many different means of restricting the entry of FMGs. A recent AMA resolution urges the "State Department to re-evaluate its open door policy regarding immigration of foreign physicians and that it encourage the repatriation of physicians to the country of their origin, especially to those underdeveloped nations where medical need is great." Other approaches have been discussed earlier with reference to changes in occupational preferences and in the Exchange Visitor Program.

The difficulty of closing off the flow of FMGs was discussed earlier in the section in International Equity. To summarize briefly some of those points: even if the Exchange Visitor Program were tightened up and the flow of FMGs remaining in this country as a result of that program were reduced, FMGs could still enter under the immigration laws as could any other immigrant. Further, those who do enter this way may be of lower quality than those who take the ECFMG and go into residency programs. If the FMGs entering as immigrants do not pass their state licensure boards, they might practice with temporary

licenses or they might become part of the FMG "underground", i.e., FMGs in paramedical jobs practicing medicine without a license. (Also what is our policy to be toward the significant number of U.S. citizens who are studying medicine overseas with the hope of becoming physicians in the U.S.?)

It would take time to replace all of the FMGs with USMGs and, as discussed earlier, the cost implications of such a replacement strategy would be enormous. Restrictions of the inflow of FMGs would have to be gradual; otherwise those people receiving their care from FMGs would not have an alternative source. Further, would the number of USMGs be large enough so that they would replace all of the jobs performed by FMGs? USMGs may not want to work in those settings (e.g., state mental hospitals) and with those population groups that the FMG is serving. If this is the case, then the effect of policies to prevent a surplus will most adversely affect those who probably have the greatest need for care.

However, those organizations and groups concerned with a surplus of physicians would most likely be <u>against</u> any replacement strategy of USMGs for FMGs. A replacement strategy would not decrease the number of physicians; it would merely substitute USMDs for FMGs. If there is to be no replacement for FMGs, what is going to happen to those persons who depend upon FMGs for their medical care?

There is some belief that, apart from any changes in programs to affect their inflow, the demand for FMGs in the U.S. might decline.

According to this viewpoint, the projections of future inflows of FMGs are vastly inaccurate and normal market forces will result in a decline in FMGs in this country.

One set of forces operating in this direction is the specialty boards which are concerned with certification of competence of persons becoming specialists. Efforts are underway by Residency Review Committees to curtail the number of residency positions by controlling the number of residencies. If this occurs, the number of residencies offered will decrease. Further, if medical schools begin to take greater responsibility for graduate medical education, as has been advocated by the AAMC, then the number of residencies will also decline if the university medical schools find that they cannot place their graduates in high quality residencies. The consequences of these policies, namely, greater control of residencies by specialty boards and by medical schools, could have effects on the availability of care similar to the policies which suggest less reliance on FMGs.

Another set of forces operating to decrease the demand for residencies, hence, for FMGs, is that there is great concern with reducing hospital utilization. Most high user groups currently have hospitalization coverage; therefore, no large surge of hospital use is expected if some form of national health insurance is introduced. Further, the emphasis is on reducing hospital use through the introduction of HMOs and PSROs. Thus, because residencies need hospital patients, when the hospitals find the number of patients available decreasing, the number of hospital

residencies will decrease. As increased numbers of USMGs begin to take residency positions, then a possible decline in hospital utilization and residencies will find the USMGs beginning to supplant the FMGs for those fewer residency positions. (Offsetting a decrease in demand for FMGs because of possible lower hospital utilization is the role that FMGs serve in hospital outpatient departments and emergency rooms. Growth of insurance coverage for ambulatory care may result in an increased demand for residents to cover these services.)

Thus, it is possible that the increased supplies of USMGs and the decreased demand for hospital residencies--as a result of action by specialty boards, further decreases in hospital utilization, etc.--will lower the demand for FMGs by hospitals. And those FMGs who are able to receive such positions will be of higher quality than previously.

B. Slow the Rate of Production of USMGs

The supply of doctors in the U.S. depends not only on the output of foreign medical schools but also upon the output of U.S. medical schools. Thus, another means of dealing with the potential problems associated with a surplus of doctors would be to decrease the rate of production of USMGs as well as decreasing U.S. reliance on FMGs. During the past decade, capitation grants have been shown to be an effective means of encouraging increased numbers of USMGs. Further, while existing schools have expanded, new schools have also opened with the help of federal subsidies. To slow the output of USMGs, several strategies are possible. A moratorium could be placed on any

new medical school construction, and existing medical schools could be discouraged from expanding their enrollment by making federal support to medical schools not contingent upon continued increases in student enrollment. (This is basically the intent of the Rogers Bill for a renewal of the Health Manpower Act.)

A policy to decrease the rate of production of USMGs goes contrary to our earlier issue, namely, to allow greater opportunity for U.S. citizens to become physicians. With applicants-to-acceptances running greater than 2:1 it may be difficult to suggest that the medical profession will not be as agreeable a profession as the applicants and their parents believe it to be. The medical schools would appear to be taking the paternalistic view that they are doing these people a favor by decreasing the opportunities for their sons and daughters to become physicians.

Even though the number of physicians in relation to the population will grow, physicians are still needed in many rural and underserved areas. Although U.S. physicians have not gone to such physician shortage areas in the past, there would be greater hope that they would do so as long as their numbers increase. Holding down the rate of production of USMGs determines that these rural communities and inner city locations will not have a physician.

Another aspect of a policy of curtailment of the production of USMGs is that if the control over this production remains with the specialty boards or with the medical schools alone and if they are

able to receive subsidies unrelated to the number of students they graduate, then we will have returned to a situation reminiscent of the 1950s and 1960s. During those periods, decisions on the number and type of USMGs was not determined by their need or location, or by the desire of students to become physicians, but instead by the policies of the medical schools themselves. Unless some mechanism is introduced to enable the schools to respond to future shortages and surpluses (as well as by type of physician, i.e., specialty, training, and minority backround), then we will not have learned anything from our previous experience. The vast sums of money spent on health manpower training will have merely created a larger establishment which may not respond to future changes in our needs for (and methods of producing) health manpower.

C. Other Approaches to Alleviating the Concerns Associated with a Surplus of Physicians

If the consequences of a surplus are that prices will be lowered and the availability of care improved, then this has been the intention of health manpower policy. Although some professional organizations may be unhappy with these consequences, it would hardly be in the interest of society as a whole to change the policy.

If, however, there is a strong likelihood that some of the consequences of a physician surplus, such as unnecessary care, increased prices and lower quality of services, would in fact occur, then direct approaches toward alleviating these consequences should be sought.

Approaches that merely attempt to decrease the supply of physicians, such as decreasing reliance on FMGs and slowing the production of USMGs, run counter to previous manpower policy, which has been to increase the number of physicians and to improve their distribution in the country.

Several approaches should be examined if the concern with a surplus is with unnecessary care, higher prices, and low quality. Although these approaches are not specifically directed to FMGs, they are directed to the causes of the possible undesirable consequences of physician surpluses.

1. Measures for the Assurance of Quality:

There are various methods to monitor and increase the quality of physician services. Some methods are more direct while others are related to the "process" of achieving high quality. Also, alternative methods will have widely varying effects on the supply of physicians. An example of a direct approach to quality control is:

a. Expanded utilization review programs. If there is a concern that a surplus of physicians will create their own demand, then in order to prevent wasteful and unnecessary services, utilization review and pre-admission certification programs, under third party reimbursement, could be expanded. These types of programs, which are slowly being developed, would cause some bureaucratic delays and costs; there would be physician resentment because of the interference in the MD-patient relationship and the fear that medical care may become too

standardized, leaving little room for innovation and differences in medical practice. Such review programs would probably result in a decrease in unnecessary surgeries and hospitalizations, but it would be difficult to control and hence would have little effect on a probable increase in physician office visits.

b. Periodic examination and re-licensure. Periodic examination as a basis for re-licensure could be expected to result in a decrease in the supply of physician services over time. The passing scores on these examinations, which could apply to FMGs as well as U.S. MDs, could be increased. Those physicians who would suffer most by such re-examination (and consequently their patients who would have less access to care than they currently do) would be the older physicians, probably in primary practice and most likely working in physician shortage areas. To improve the chances of passing the exam, a physician would probably take continuing education courses. Increased attendance at such courses would decrease the time that is available for patient care services and hence would result in a decrease in the supply of such services as well.

If it appears that a significant number of physicians would not pass the exam, then limited licenses (by task) could be issued. Rather than acknowledging only one level of passing, the examination could recognize different levels of ability and training and acknowledge this by providing limited licenses to practice. If this should occur, there would be a smaller decrease in the supply of

physician services than if only one level of passing, raised over time, were applied.

2. Alternatives to Fee-for-Service Reimbursement:

It is only under a fee-for-service system that the incentive exists to provide unnecessary services. And when such services are reimbursed by a third party, the patient has little incentive (and information) to discourage such use. One policy option that would attempt to correct this problem would be to encourage alternative methods of physician reimbursement. An example of such an alternative would be capitation payments for just physician services, and also capitation payments for all medical services, such as exists under prepaid group practices and HMOs. These different payment systems would provide different incentives to physicians, incentives which would have the opposite effect of a fee-for-service system.

The establishment of such alternative payments and delivery systems takes time, and patients may not be aware of the costs, quality, benefits, etc. under such different systems. Therefore, it might also be worthwhile to provide greater consumer information to enable them (or the purchasers on their behalf, e.g., unions and companies) to make improved choices.

These competitive pressures from other payment sources, together with utilization review procedures, might lessen the ability of providers to create their own demand.

VI. Concluding Comments

The four concerns that people have expressed with regard to foreign medical graduates all call for, initially, a reduction in the inflow and retention of FMGs in this country. However, on closer analysis, an arbitrary reduction in FMGs alone does not appear to be the solution to any of the concerns expressed, nor is it even realistic. Further, the differential effects of a reduction in FMGs on the population they serve may more than outweigh any benefits from such arbitrary reductions.

With regard to the issue of International Equity, less developed countries that are losing FMGs are not compensated for their losses if the U.S. limits FMG immigration and some of the FMGs then go to other developed countries. (If a restrictive FMG immigration policy by the U.S. is to be helpful to the losing country, then the other developed countries would also have to have similar restrictive policies.) The U.S. (and other developed countries) clearly benefit since they save the subsidy that would be required to produce an equivalent number of physicians themselves. Ideally, the losing country should be reimbursed for its costs; however, it is difficult to estimate what those costs really are, who should reimburse the losing country, and how to bring such an optimum solution about. The most direct way would be for the losing country to collect reimbursement from the emigrating FMG. Failing that, what can the U.S. do to assist the losing country?

Given the limits and nature of U.S. immigration policy, the U.S. should not discriminate with respect to who is brought into the U.S. to solve U.S. health manpower problems; it should at least be neutral in the type of immigrants it tries to attract. Changing the occupational preference

category so that FMGs are no longer given preferential immigration visas would achieve the goal of neutrality. Similarly, the U.S. should stick to the intent of the Exchange Visitor Program, which is to assist other countries, and not use it for their own benefit. Therefore, changes should be made in that program to change the selection process, requiring the student to leave the U.S. for several years and to offer training to that student which is relevant to his own country's needs.

Beyond the above proposals, suggestions arbitrarily to limit the number of FMGs (quotas, immigration law changes, limits on residencies, etc.) do not necessarily help the losing country if the FMG goes to another developed country. But who in the U.S. would lose these benefits? The states are affected differentially. Certain states depend on FMGs a great deal more than others. The state mental hospitals would be hard hit, and those individuals who receive care from FMGs, presumably the underserved and those with low incomes. To replace these benefits by producing our own physicians would take a long time and cost an enormous amount of money--and even then it is not clear that U.S. graduates would go to those places and serve those people currently being served by FMGs.

With regard to the Quality issue, the available empirical evidence shows that FMGs on the average do not perform as well as USMGs on tests or in residencies and that they also take more of their residencies in unaffiliated hospitals. Quality proposals which merely limit the availability of residencies to FMGs often do not differentiate among FMGs. The quality of the FMG is quite heterogeneous. Further, quality measures that decrease the availability of residencies to FMGs (e.g., raising passing

scores, doing away with unaffiliated residencies) have some "costs" associated with them, namely, that the population receiving its source of primary care from FMGs will suffer a decrease in the availability of that care. On the other hand, measures to upgrade the residency programs or to offer limited licenses (by tasks) result in much smaller decreases in care to the population served by FMGs. The Quality issue, although an important concern with regard to FMGs, is also important for all physicians and therefore, should be handled in a similar fashion for U.S. physicians. Thus, consideration should also be given to periodic re-examination and limited licensure for all less qualified physicians and not just for FMGs.

The unsatisfied demand for a medical education by U.S. citizens and the presence of a large number of FMGs in this country appear, at first, to be related. However, an excess demand for medical education existed before FMGs entered in large numbers and would exist even if entry of FMGs were restricted. The entry of FMGs did, however, provide a relatively quick response (at a low cost to the U.S. taxpayer) to the rising demands for physician services during the 1960s. They helped to ease a manpower shortage in this country, but they did not decrease U.S. medical school output. If the U.S. had not been able to rely on the FMG during this period, there might have been a serious re-examination of the methods by which physician services are provided. If methods exist that can increase physician productivity, and thus

increase the supply of physician services (without any reduction in quality), then these methods should be examined. It should not be necessary to institute a crisis of health manpower by eliminating FMGs to bring about desirable change.

Two basic strategies could be considered to decrease the unsatisfied demand for a medical education. The first approach would be an increase in the medical educational opportunities available to U.S. citizens. If this were achieved by an expansion of medical school capacity, then it would take many years to achieve and would be enormously expensive. This approach, therefore, does not appear to be a politically realistic solution to the problem of unsatisfied demand for a medical education. A partial solution would be to encourage and assist U.S. students studying overseas and then to re-integrate them into U.S. medical schools.

An entirely different approach to the problem of excess demand for a medical education is to decrease this demand by raising tuition so that tuition represents a greater portion of the costs of education. Currently, medical students come substantially from the highest income families in the U.S. and upon graduation they become part of the highest income profession. Unless the medical student is willing to provide services in a shortage area, why should he or she be given such large subsidies while in school? In order to make it possible for students from all backgrounds to attend medical school, loan and service programs would have to become an integral part of any policy which seeks to have tuition cover a greater part of the educational costs.

As regards the issue of a physician surplus, a distinction should be made between an increase in the number of physicians and the consequences of certain forms of competitive behavior. The effects of these are not the same. Presumably it is the undesirable consequences of certain forms of competitive behavior, e.g., provision of unnecessary care, that we would like to prevent.

The consequences of increased competition among physicians will not be alleviated by decreasing the number of FMGs in the U.S. There are physician shortage areas and some people still do not have sufficient access to medical care. Decreasing the availability of care because of a fear that physicians will prescribe unnecessarily is a poor solution. Utilization review and alternatives to the fee-for-service system (e.g., HMOs) would be more direct solutions to this type of concern.

The purpose of this paper has not been to present an exhaustive list of policy options. Instead, it has been an attempt to clarify the debate on FMGs, first by explaining the basic concerns in this area, and second, for each concern, by discussing a limited number of options. However, it is possible to go one step further. Each policy option not only will have an effect on the issue to which it is directed, but in addition, it will likely affect one or more of the other issues. Therefore, a summary table is provided to indicate the inter-relationship of each policy option on each of the four major issues. (Just the basic inter-relationships have been shown and not all the subtleties and complexities of the various options and issues.)

Hopefully, the inter-relationship of issues and options will clarify both the true concerns of different proponents of public policy and the relevant options and their consequences.

(There should be an additional column to this table which would be labeled "The Effect on the U.S. Health Care System". However, there is insufficient evidence to judge the impact of the various policy options on this area.)

Examination of the table suggests that certain policy options will have strong positive effects (in the same direction) for more than one issue. For example, changes in immigration policy and in the Exchange Visitor Program will improve international equity (+) and also be favored by those for whom the surplus of physicians is an issue (+). Similarly, a decrease in the number of residencies available to FMGs may have minimal effect, if any, on the international equity issue (they may go to another developed country), but we would expect it to be favored by those groups and organizations interested in the Quality, Sons and Daughters and Physician Surplus issues: (+) for all three.

In addition to summarizing the effects of the various policy options, the summary table (if correct) can be useful for indicating the consistency toward certain policy options by proponents for a particular issue. For example, if someone is concerned with the issue of quality, then the effect of options to increase quality would be favored, presumably, regardless of its effect on other issues. However, if proponents of quality are interested only in those quality options that result in improvements,

Summary of FMG Issues and Consequences of Different Options

OPTIONS	ISSUES: International Equity	Quality	"Sons & Daughters"	Surplus of Physicians
Equity:				
1. Changes in Immigration Policy	+		+	+
2. Changes in Exchange Visitor Program	++		+	+
3. Establish Regional (or Hemispheric) Training Centers	+			
4. Decrease the Number of Residencies Available to FMGs	?	+	+	++
Quality:				
1. Elimination of Residencies in Unaffiliated Hospitals	?	+		+
2. Upgrading the Residency Program	?	+		
3. Improved Testing and Higher Test Scores	?			-
4. Limited Licensure		+		
Sons and Daughters:				
1. Expand U.S. Medical School Capacity			++	--
2. Increase Overseas Medical Education Opportunities				-
3. Decrease the Demand for U.S. Medical Education			+	+
Surplus of Physicians:				
1. Decrease U.S. Reliance on the FMG			+	+
2. Slow the Rate of Production of USMGs			--	+
3. Other Approaches for Alleviating the Concerns Associated with a Surplus of Physicians		++		++

* A plus (+) indicates that a policy will alleviate the concern associated with a particular issue. A minus (-) suggests that the policy option will tend to result in even greater concern by the proponents of an issue, e.g., an expansion in medical school capacity will cause even greater concern than previously for those for whom the physician surplus is an issue. Multiple

for example, in the physician surplus issue, then perhaps the real issue is not one of quality but is instead, of the reduction of the number of physicians.

Another use of the table is that it indicates those policy options which would tend to have more support (hence be less controversial) among the proponents for each of the different issues. For example, changes in the Exchange Visitor Program will be favored by proponents of at least three issues (International Equity, Sons and Daughters, and Physician Surplus). Similarly, those policy options (e.g., increasing medical school capacity) which tend to improve the position of the proponents of one issue (e.g., Sons and Daughters) while worsening the position of the proponents of a different issue (e.g., Physician Surplus) will tend to be more controversial. Based upon the above table, improvements in International Equity can best be achieved (from among those options listed) by changes in the immigration (occupational preference categories) and Exchange Visitor Programs. These options would also receive support by proponents of other issues. None of the other options discussed would have any large effect on improving the welfare of the countries losing FMGs.

The effect of several Quality options on international equity is uncertain (?). If such measures result in the FMGs remaining in their home country then there would be a positive (+) effect. If, however, the increased quality standards result in the U.S. attracting only the highest quality FMGs, then the effect on international equity would

be negative (-).

Only one of the Quality options would be controversial. Proponents of the Physician Surplus issue might believe that limited (by task) licensure might result in an increase in the supply of physician services, hence increased competition in that market. This could occur if persons not currently supplying physician services, e.g., physician assistants, are brought into the pool of those supplying such services.

The greatest potential conflict between proponents of different issues occurs under those options that either attempt to increase educational opportunities for U.S. citizens and/or slow the rate of production of U.S. medical schools. However, both of these issues (the Sons and Daughters and the Physician Surplus), and the options proposed, are basically unrelated to the FMGs.[52]

The FMG has been used by the U.S. to alleviate a physician "shortage" problem during the 1960s. FMGs were a quick and low-cost (to the U.S. taxpayer) approach to alleviating this situation. However, the FMG did not take away opportunities for U.S. citizens to become physicians--the available opportunities are a result of the interaction between medical schools and the way they are financed.

With all due respect to the complexity of the issues surrounding FMGs, I would like to suggest that the basic concern with FMGs is neither the FMG nor a concern with the FMG's country. Instead, it is a result of a basic disagreement among those who hold different opinions regarding what the available supply of physician services should be in this country.

FOOTNOTES

1. Lowin, Aaron, The Foreign Medical Graduate and American Health Care, Unpublished Manuscript, Interstudy, Minneapolis, Minnesota, August 1, 1974, p. 1-1.

2. Medical Education in the United States, 1972-1973, Journal of the American Medical Association, November, 19, 1973, p. 935.

3. Lockett, Betty and Williams, Kathleen, Foreign Medical Graduates and Physician Manpower in the United States, DHEW Publication No. (HRA) 74-30, February 1974, p. 12.

4. JAMA, op. cit., p. 937.

5. See Bhagwati, J. and Dellalfar, W., "The Brain Drain and Income Taxation," World Development, Vol. 1, Nos. 1,2, 94-101, 1973.; Stevens, Rosemary and Vermeulen, Joan, Foreign Trained Physicians and American Medicine, DHEW Publication No. (NIH) 73-325, June 1972, p. 48,69-70.

6. Weiss, Robert J. et al, "The Effect of Importing Physicians - Return to a Pre-Flexnarian Standard," The New England Journal of Medicine, June 27, 1974. Also, The American Medical Association House of Delegate Resolution #22, expresses concern regarding the quality of care delivered by FMGs.

7. Lockett and Williams, op. cit., p. 4.

8. See text of speech by Charles C. Edwards, Assistant Secretary of HEW at Annual Meeting of AAMC on November 5, 1973. Speech is published in the January 1974 Journal of Medical Education.

9. Stevens, Rosemary and Vermeulen, Joan, Foreign Trained Physicians and American Medicine, DHEW Publication No. (NIH) 73-325, June 1972, p. 100.

10. Lockett and Williams, op. cit., p. 91.

11. A recent change in the immigration regulations makes it more difficult for FMGs to obtain Labor Department certification. Due to the urgings of the AMA, the ECFMG and the AAMC, FMGs are now required to provide more evidence of their qualifications to practice medicine. Prior to the change in the regulations, an FMG could obtain an occupational preference visa if he or she was licensed to practice in his or her own country. Now, an FMG seeking Labor Department certification is required to present evidence that: "(1) he has either met the requirements for licensure or is eligible to take the state licensing examination in the state in which he intends to work; or (2) he has met the requirements for an appointment to an approved internship or residency and is being offered such a position; or (3) he has passed the ECFMG; or (4) he has an appointment in a situation which does not involve direct patient care.:
Stevens and Vermeulen, op. cit., p. 73, Information based on Federal Register, 36 (February 4, 1971), p. 2465.

12. Lockett and Williams, op. cit., p. 14.

13. Ibid., p. 12.

14. Stevens and Vermeulen, p. 71. (Initially taken from "Annual Indicator of the Immigration into the United States of Aliens in Professional and Related Occupations, Fiscal Year 1970, Department of Justice, Immigration and Naturalization Service,: 1971, p. 25).

15. Lockett and Williams, op. cit., p. 14.

16. Illegal Alien Hearings, Judiciary Committee, Subcommittee 1, House of Representatives 92 Congress, June 3, 1971, Part 1, pages 54-57, and 66-69.

17. Lowin, op. cit., pp. 7-1 and 7-2.

18. It is difficult to calculate the savings that accrue to the U.S. taxpayers as a result of FMGs. FMGs are reputed to be of lower quality than U.S. medical graduates; hence, they would be less costly to replace than if they were of higher quality. Nevertheless, some estimates have been made of the savings as a result of not having to produce an equivalent number of U.S. medical graduates.
If the objective were to replace 3,000 FMGs per year by 1986, then this would require an expenditure of approximately 3.8 billion dollars through 1986. (Locket and Williams, op. cit., p. 74.)
Since the number of FMGs currently entering the country is more than four times that amount, the reproduction costs would be much greater than merely quadrupling the dollar estimates. This is because additional resources could not be attracted to the medical education sector unless higher prices were paid to these resources.
Another estimate of the savings to the U.S. taxpayer from importing FMGs rather than producing USMGs is described on page 32 of this paper. Since the annual subsidy per student per year is $ 8,250, the total subsidy, exclusive of capital outlays, is therefore $33,000 per U.S. graduate. For 10,000 additional graduates the capital outlay would be approximately $4.5 billion. Thus, replacing 10,000 FMGs per year would cost the U.S. taxpayer, at a minimum, $330 million per year plus more than $4 billion in capital outlays. For 20 years the sum would be approximately $11 billion, assuming today's dollars. These replacement cost estimates are still lower than the first set of estimates since the first set assumed an annual replacement of 3,000 FMGs which would be achieved by 1986. Since medical education costs can be assumed to increase by at least 5 percent per year, either method of calculation is likely to result in a substantial cost of replacement to the U.S. taxpayer.

19. It is not clear how high an "export" tax a country would require of an FMG in order to allow him to emigrate. If, as in some countries, there are too many medical schools and the graduates do not go into the areas where they are most needed, i.e., the rural areas, and if the country receives important foreign exchange when the FMG sends funds to his remaining relatives, then the tax required would be lower than if these conditions did not exist.

20. One possibility to get around this, as suggested by George Wright, would be for the U.S. to charge the FMG a conversion "fee" and allow the FMG to spread the payment of this fee over the next several years on his tax returns. Problems would remain with this approach, however. What would be the proper fee to charge the FMG to be remitted to the losing country? What if the FMG received his medical education not from his country of origin but from an intermediate country, e.g., Great Britain? Which country should receive the fee?

21. There may be some FMGs who would not emigrate if they could not enter the U.S. However, this would not solve the problem for the losing country. It would require multi-lateral agreements among most if not all of the developed countries to keep the FMGs in their home countries. Currently, few developed countries bar entry to FMGs. It is also questionable whether these countries would then produce as many physicians as they do if the FMGs knew that they could not emigrate to a developed country.

22. Stevens and Vermuelen, op. cit., p. 147.

23. Lockett and Williams, op. cit., p. 99 (From Haug, J. and Martin, B., Foreign Medical Graduates in the United States, 1970, AMA).

24. Lockett and Williams, op. cit., p. 37.

25. JAMA, November 19, 1973, p. 929.

26. "Of 3,158 physician immigrants (included those adjusted from temporary visitor status), 840 were beneficiaries of occupational preferences..." Stevens and Vermuelen, op. cit., p. 66, also p. 96.

27. Ibid., pp. 96 and 67.

28. These estimates of the effects of changes in the occupational preference category and in the Exchange Visitor Program should be considered as very "soft". In 1972, after the "skills" list was published, one out of every two immigrant visas went to an FMG who was an exchange visitor. This latter ratio, one out of every two, could be a temporary phenomenon because of the change in the preference category for those FMGs who are currently exchange visitors. Further, if the Exchange Visitor Program were changed so that FMGs were required to leave the U.S., then there may be a decline in the number of FMGs applying as exchange visitors and attempting instead to enter the U.S. under other preference categories and general quotas.

29. Such a program would be helpful to those FMGs who originally intended to return home but who, after being in the U.S. a number of years, became acclimated to the U.S. and decided to remain.

30. Whether the elimination of FMGs would lead to their replacement by physician assistants (or other physician extenders) is very difficult to predict. This is because the rationale for having PAs has existed for many years and the need for them would not be dependent upon the

elimination of FMGs. Part of the reason for their lack of acceptability in the hospital as substitutes for FMGs and other interns and residents, I believe, revolves around the issue of who receives the benefits (other than the patient) from their availability and who will reimburse them. For example, if PAs replace FMGs and other residents in the hospital, will the attending physician continue to be reimbursed for physician services performed by a PA under his supervision? Further, will the physician reimburse the PA or will the hospital and thereby pass the costs along through an intermediary?

The substitution of PAs for FMGs in hospitals would, in any case, take a number of years, and if the patients being served by FMGs are not to go without care then any policy of FMG elimination must be gradual. In addition to being a more costly policy than our current reliance on FMGs, it is not clear that the less developed countries will receive any benefits from it if the FMG then goes to another developed country.

31. See Lowin, op. cit., Chapter 4 for a summary of the data on the performance of FMGs on exams and peer review audits.

32. JAMA, November 19, 1973, pp. 927-937.

33. Ibid.

34. Ibid.

35. Stevens and Vermeulen, op. cit., p. 131; Based upon data from the February 1969 administration of the ECFMG examination. (Also in ECFMG, Annual Report, 1970, p. 12).

36. Exams can be used as a restrictive device in two ways. The first is to set the passing score higher than is necessary. The second is the requirement that FMGs take parts I and II of the National Boards after completion of their medical training. Would USMGs' performance on part I be the same if they took part I several years after having taken their basic science courses?

37. Several types of less-than-full licenses are presently issued in most states and some of these licenses or permits are granted to FMGs who have been unable to obtain passing scores on licensure examinations. However, limited licensure in its present form does not effectively restrict the scope of practice or define the amount and types of supervision appropriate for the FMG so licensed. If limited licensure is to become a viable mechanism for enabling physicians of differing levels of qualification to practice medicine, while at the same time safeguarding quality of care, a system would have to be developed by which tasks, responsibilities, and supervision assigned to individual physicians are derived on the basis of levels of qualification and demonstrated competence. Some form of institutional licensure, whereby the relationship between institutional employers and their employees becomes governmentally monitored and regulated may be one vehicle for better linkage between levels of competence and the scope of practice.

38. JAMA, November 19, 1973, p. 909.

39. Prism, August 1973, p. 58.

40. The ratio of applicants to acceptances has been at or above 1.7 since 1947-48 and was as high as 3.5 in 1948-49.

41. Except for other reasons discussed in this paper, namely, international equity, quality and competition.

42. JAMA, November 19, 1973, p. 929-930. The JAMA education number for 1973 did not provide data on the number of first-year residency positions offered in affiliated hospitals, although it did permit an estimate of the number of residencies accepted by USMGs and FMGs. To estimate the number of residencies offered in affiliated hospitals, the ratio of acceptances to offerings in all hospitals was applied to the affiliated hospital residency data. Since affiliated hospitals are normally more successful in filling offered positions than are non-affiliated hospitals, this estimation method may result in an overestimate of the number of unfilled residencies in affiliated hospitals

43. Smythe, Cheves McC., "New Resources for Medical Education: Start-up Expenditures in 22 New U.S. Medical Schools", Journal of Medical Education, September 1972, pp. 696-697.

44. Institute of Medicine - National Academy of Sciences, "Costs of Education in the Health Professions", January 1974, p. 62 and 87.

45. The additional operating subsidy required per student is based upon the estimate that tuition covers 1/3 of medical education costs. This figure is an upper-bound estimate on the percentage of costs covered by tuition. According to the AAMC, in 1971-72, the average tuition in private medical schools was $2,274. This amounts to only 18% of the estimated $12,530 cost per student per year of medical education in 1972-73. Since private schools are normally more expensive to the medical student than public schools, the upper-bound estimate that tuition covers 1/3 of education costs seems reliable. Therefore, the above estimates of the subsidy required to expand student enrollment are actually lower than the amounts that would be required. See the Journal of Medical Education, February 1973, p. 175-176 for information on tuition levels in medical schools. Volume 46.

46. Lowin, op. cit., p. 7-1.

47. Mason, H.R., "A Profile of 314 Americans Graduating from Foreign Medical School," JAMA, 209: 1196-99, 1969.

48. Lockett and Williams, op. cit., p. 72.

49. JAMA, November 19, 1973, p. 949-950. As of September 1972, 17 hospitals were authorized to offer "Fifth Pathway" training. At that time, 23 students had entered residencies after completing the "Fifth Pathway" clinical training.

50. "In my judgment, even more significant is the possibility we may well be facing a doctor surplus in this country. A number of authorities now

see this as a distinct possibility, one that must figure very heavily in both our immediate and long range planning in the health manpower field." Charles Edwards, op. cit.

51. An example of such a proposal is Resolution 22 of the AMA's House of Delegates.

52. A decrease in the production of USMGs could, however, result in an increased demand for FMGs, hence have a negative effect (-) on the international equity issue.